

REMARKS

The present application was filed on November 9, 1999 with claims 1 through 58. Claims 1 through 58 are presently pending in the above-identified patent application.

In the Office Action, the Examiner rejected claims 1-11, 13, 15-21, 24, 26-32, 35, 37-39, 40-47, 49, and 50-57 under 35 U.S.C. §103(a) as being unpatentable over Li et al. (United States Patent Number 6,219,793 B1), and further in view of MacDoran et al. (United States Patent Number 5,757,916). The Examiner also rejected claims 12, 14, 22, 23, 25, 33, 34, 36, 48, and 58 under 35 U.S.C. §103(a) as being unpatentable over Li et al. in view of MacDoran et al., and further in view of "Wireless Enhanced 9-1-1 Service – Making it a Reality," Bell Labs Technical Journal (Autumn 1996) by Meyer et al. (hereinafter Meyer et al.)

The present invention is directed to a global positioning system (GPS)-based access control method and apparatus for limiting access to a device or secure facility by verifying the location of an authorized user. The GPS-based access control system confirms that the user requesting access to a device or secure location is physically present at the location of the device or secure location. Upon an access control request, the location of the user is obtained using an individual GPS system carried by each user on a portable device, such as a pocket token, computer-readable card, cellular telephone or watch. If the location of a person making an access control request does not coincide with the coordinates of the individual GPS that is being worn by the authorized user associated with the password, then the person requesting access is unauthorized.

Independent Claims 1, 16, 27, 38, 39, 42, 45, 49, 52 and 55

Independent claims 1, 16, 27, 38, 39, 42, 45, 49, 52, and 55 were rejected under 35 U.S.C. §103(a) as being unpatentable over Li et al., and further in view of MacDoran.

In particular, the Examiner asserts that Li teaches a challenge-response to authenticate a wireless communication, but acknowledges that Li does not disclose a "challenge response method that uses the location." The Examiner asserts, however, that MacDoran discloses a "method of providing the location of the client ...and granting access to the user if the location is within a predetermined threshold."

Applicants note that MacDoran is directed to a method and apparatus for authenticating the identity of a remote user *entity* where the identity of such user entity is authenticated by use of information specific to geodetic location of the user *entity* (see, Abstract). MacDoran compares the *expected location of an electronic device* with the  
5 *current location of the device* and will not allow access if the locations do not match. The present invention, alternatively, is directed to authenticating a user by confirming the location of the user utilizing, for example, a GPS device carried by the user. Thus, MacDoran would require a *single GPS device located at a client machine* and the present invention would require, for example, a *separate GPS device for each user* of the client  
10 machine.

Applicants also note that MacDoran defines “entity” as an electronic device and specifically states that this definition “*does not extend to individual users* that operate an entity, because the invention does *not* have the ability to authenticate an individual person.” (Col. 6, lines 59-65; emphasis added.) Thus, MacDoran actually  
15 teaches away from the present invention by teaching that the invention cannot be used to authenticate an individual person.

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~~Independent claims 1, 16, 27, and 38 require identifying a location of an~~  
*authorized person* associated with said response; identifying a location where said response is received; and *providing access to said user* if said locations match.  
20 Independent claims 39 and 49 require identifying each registered person within a predefined distance of said requested device. Independent claims 42 and 52 require *identifying said user* by comparing a *location of each identified potential user* with a location where said biometric information was obtained. Independent claims 45 and 55 require *identifying said user* and *confirming said user requesting access to said device is*  
25 *physically present at the location of said requested device by determining a location of said transmitting device (wherein said transmitting device is associated with said user)*. MacDoran does not disclose or suggest any of these limitations.

Thus, Li and MacDoran, alone or in combination, do not disclose or suggest identifying a location of an authorized person associated with said response;  
30 identifying a location where said response is received; and providing access to said user if said locations match, as required by independent claims 1, 16, 27, and 38, do not disclose

or suggest identifying each registered person within a predefined distance of said requested device, as required by independent claims 39 and 49, do not disclose or suggest identifying said user by comparing a location of each identified potential users with a location where said biometric information was obtained, as required by independent claims 42 and 52, and do not disclose or suggest identifying said user and confirming said user requesting access to said device is physically present at the location of said requested device by determining a location of said transmitting device (wherein said transmitting device is associated with said user), as required by independent claims 45 and 55.

Additional Cited References

Meyer et al. was also cited by the Examiner for its disclosure of asking the cell phone user "Do you have any more details on your location?" (Meyer: page 189, right column, lines 1-2.) Applicants note that Meyer is directed to enhanced 9-1-1 service for wireless networks. Meyer does not disclose or suggest the identification of a user as described in the limitations of the independent claims.

Thus, Meyer does not disclose or suggest identifying a location of an authorized person associated with said response; identifying a location where said response is received; and providing access to said user if said locations match, as required by independent claims 1, 16, 27, and 38, does not disclose or suggest identifying each registered person within a predefined distance of said requested device, as required by independent claims 39 and 49, does not disclose or suggest identifying said user by comparing a location of each identified potential users with a location where said biometric information was obtained, as required by independent claims 42 and 52, and does not disclose or suggest identifying said user and confirming said user requesting access to said device is physically present at the location of said requested device by determining a location of said transmitting device (wherein said transmitting device is associated with said user), as required by independent claims 45 and 55.

Dependent Claims 2-15, 17-26, 28-37, 40, 41, 43, 44, 46-48, 50, 51, 53, 54 and 56-58

Dependent claims 2-11, 13, 15, 17-21, 24, 26, 28-32, 35, 37, 40, 41, 43, 44, 46, 47, and 50, 51, 53, 54, and 56-57 were rejected under 35 U.S.C. §103(a) as being unpatentable over Li et al., and further in view of MacDoran et al. and dependent claims

12, 14, 22, 23, 25, 33, 34, 36, 48, and 58 were rejected under 35 U.S.C. §103(a) as being unpatentable over Li et al. in view of MacDoran et al., and further in view of Meyer et al.

Claims 2-15, 17-26, 28-37, 40-41, 43-44, 46-48, 50-51, 53-54, and 56-58 are dependent on claims 1, 16, 27, 39, 42, 45, 49, 52, and 55, respectively, and are therefore patentably distinguished over Li et al., MacDoran et al., and Meyer et al. (alone or in any combination) because of their dependency from amended independent claims 1, 16, 27, 39, 42, 45, 49, 52, and 55 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims, i.e., claims 1-58, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,



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